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WHAT ABOUT CONIFER ESTABLISHMENT?

The establishment of conifers in our shelterbelt plantings presents a problem which is a direct challenge to our otherwise successful tree planting technique. In spite of the adoption of various new methods of handling and planting conifer stock, the results obtained have been decidedly poor. When the amount of effort and money expended on such an activity is considered the number of successfully established conifer rows is far too small.

The question which confronts us is, "What can we do to make our conifer plantings successful?"

We have developed methods of production for *Juniperus* species which give us an adequate supply of trees that are potentially strong enough to survive and grow. Problems in pine production are not so completely solved. Adjustments in methods which will produce well-balanced, fibrous-rooted pine stock are a necessity. Just how this can be done remains in the theory stage, but nurserymen who have been engaged in pine production should by this time have pretty firm convictions as to what sort of culture methods are needed to develop trees of the desired quality.

In a recently instigated study of several age and culture classes of Ponderosa pine, the following data were recorded. The quality of the stock as reflected in top-root ratio was best in 1-2 stock which was root pruned at the beginning of the second year in the transplant bed. Trees of the next best quality were obtained from 3-0 stock which was root pruned and heavily thinned at the beginning of the third season. Next in quality was 1-1-1 stock, and the poorest of all was 2-1 stock. Survivals were exactly in accord with comparative top-root ratios. This study has indicated that root pruning has at least an equal position of importance as transplanting in the culture methods of Ponderosa pine.

However, it is of no avail to produce planting stock of quality in our nurseries if it is to meet such adverse conditions in handling after it leaves the nursery that it is injured unduly as it has been in the past. Injury is known to occur in handling, transporting, storage in heel-in beds or stock piles, transfer to planting site, and in planting operations. If the trees are fortunate or strong enough to escape these pitfalls, they fail because

they are planted in dry soil or suffer abuse from cultivation or are burned by the heat of the sun and blast of the wind or succumb to drought in the first year of their field establishment. It is reasonable to assume that the injuries from all of these sources are cumulative, each leaving the tree with less chance to survive as it progresses toward establishment or death. The elimination of only one of the sources of injury might mean the difference between failure and success.

I am not attempting to answer this question in a conclusive manner as to just how we can make our conifer plantings successful. I think the solution of the problem is more a responsibility of you who are administratively engaged in handling conifer stock both before and after it is planted. It is my opinion that the greater part of the answer lies in the elimination of some of the sources of injury and the amelioration of all of them. Success is not unattainable! We have living examples of thrifty conifer rows to prove it. These perhaps are more by accident than design due to fortunate combinations of circumstances.

Preliminary results of a conifer planting study, in which 2-1 potted conifer stock (transplanted as 2-0 into pots) was compared with bare-rooted stock in field plantings, show that when the roots of Ponderosa pine were not exposed to such injuries as occur during transportation, heel-in and planting, survival was increased from 22% to 84%. In another study, the use of waxes on the tops of conifer planting stock showed no effect on survival. Observations throughout the region have shown that controlled vegetative cover, such as rows of cane along the conifer rows, has given outstanding protection against sun, wind, and sandblast. Trials of various types of individual shades on this Project the last two years have shown no particular advantages from the comparatively expensive method, although such protection has been considered advantageous in the past. Weeds left in the conifer rows have questionable advantages.

In nearly all districts there are individual rows of conifers which show excellent survival and growth. An insight to the solution of these conifer planting problems can undoubtedly be had from tracing the history of these successful plantings. Let's have some reports on these histories. In addition, all of those who have contact with nursery, planting or maintenance phases of shelterbelt work have probably made observations which would be invaluable for leads for future study.

What do you have on the following subjects?

1. Age classes for various coniferous species.
2. Influence of root pruning, soil character, fertilizers, etc. on development of fibrous-rooted, well-balanced planting stock.
3. Special containers for shipping and/or storing stock.
4. Special planting crews for conifers only.
5. Watering trees when they are planted.

6. Cooperation from farmers in watering trees during the first season.
7. Covering newly-planted trees with soil, straw or weed mulch for a variable period after planting.
8. Dams or depressions around the trees for the first few months for the conservation of natural precipitation.
9. Establishment of protective vegetative cover before planting and its maintenance throughout the first and second seasons.
10. Planting in blank rows in older shelterbelts.

These are just a few suggestions for cogitation. If you have any information on these or other angles concerning conifers, see that it is spread on these pages soon. If you suffer from that prevalent malady "non-write-itis," pass what observations you have made to your State or Regional Office inspector. Votes or opinions aren't solicited. Actual observations, trials, and logical reasoning are the only tools that will solve the problem.

- Alba H. Briggs, R.O.

WHEN OTHER MEASURES FAIL - GET "DURFFY"

Seed collection crews have a habit of bringing in other things besides seeds, and the men who have been bringing goodly loads of black walnuts, Russian olive seeds, and acorns to the nursery at South Sioux City, Nebraska, are no different from the usual run when it comes to picking things up. One day a "sand adder's" wife became a widow; another day a crew crossing a corn field came upon two half-grown black bears. The boys "froze" in their tracks, unable to run, but it really wasn't necessary thanks to the chains with which the bears were tied. As soon as knees thawed out, progress was continued.

The crew really didn't intend to bring the bears to me -- I hope! -- but their habit of collecting oddities enabled us to solve one which isn't in the book and, with all due respect to Carroll Orendurff, Nebraska's rodent controller, to demonstrate once more how nurserymen will exercise their ingenuity to get results.

Not long after seed collection got into full swing, rats got into our seed stores -- they liked the acorns especially well -- and in spite of liberal use of "squill a la Orendurff" they persisted in making a shambles of our neat array of seed. Not only that, but the permanent residents invited all of their hungry relatives to the feast and all invitations were accepted with alacrity.

Night and day, day and night, we frantically did battle with the rodents, but then a crew of seed gatherers found a grand-daddy bull snake somewhere in the hills and brought him to the nursery. We dropped him near our carload of shingle tow which is staked close to the warehouse and made an ideal home for the snake. The rats disappeared pronto and the afternoon this was written I saw "Durffy" -- we have dubbed him "Durffy" because he has definitely replaced Orendurff so far as rat control is concerned, even if not in our affections -- he appeared rather underfed and gaunt.

I have notified Orendurff that his namesake is available for hire and that possibly he could be cajoled into developing a taste for grasshoppers. This would leave only one small matter in our still hopeful future; perhaps we have among our versatile personnel an animal trainer who could teach "Durffy" to distinguish R.O. inspectors and sort of hang around 'em until their interest in things nursery-like fades.

Any of you southern "peach pit nurserymen" who may have a special job for "Durffy" please get your requisition in here early -- first come, first served, but if I don't send him south on detail soon, he'll go into stratification and won't be available until spring.

For detail seekers' information: "Durffy" is $5\frac{1}{2}$ feet long.

- L. D. Martelle, Nebraska

HAVE WE A WAR OF MEASUREMENTS?

I hereby give notice to the Cheyenne Subdistrict of Oklahoma that we in Kansas also have fair success with Chinese elms and a few other trees. I might even go so far as to say that the Paul Bunyan Logging Company is growing apprehensive -- if operations are delayed much longer some of the timber will be too large to handle with present equipment.

When I was cruising the stand -- it is the C. J. Finfrock 1939 shelterbelt near Hutchinson, Kansas -- and marking trees in accordance with selective logging practice, I noticed trees of heights as follows: Chinese elm, 8 feet 9 inches; osageorange, 4 feet 2 inches; hackberry, 5 feet 5 inches; cedar, 2 feet 6 inches; American plum, 5 feet 5 inches; cottonwood, 9 feet 7 inches; American elm, 7 feet 3 inches, and mulberry, 6 feet 6 inches. If I hadn't had my compass I could easily have become lost in the tall timber.

Fred Yaruss claims he wasn't bragging or shrinking the tape any in telling of the wonders of the Cheyenne Subdistrict. Well, neither am I. The Finfrock shelterbelt was planted March 18, 1939, and the trees mentioned above were measured September 29, 1939. The measurements were made with a standard metallic tape, not a fisherman's rule.

- William V. Catlow, Kans.

VISIBILITY CREATES OWN TRAFFIC HAZARD?

Two articles discussing traffic hazards created by shelterbelts' reducing the range of visibility at intersections have appeared in the Plains Forester. It is my opinion, however, that the wide range of visibility at intersections arising from the flat character of the country in itself has created the traffic hazard.

In the mountainous and timbered country, where visibility at intersections is limited, there are very few accidents at intersections because drivers usually are on the alert on reaching intersections and stop before moving into through traffic. But on the Plains, a "tin clod-hopper" will rattle merrily from a "dry wash" that serves as a road and amble defiantly across a concrete highway and its 60-mile-an-hour traffic. A close examination of the driver's face will reveal a visage expressing careless indifference; he saw that old bus "a'coming away before now" and it held no terrors for him. Drivers such as

that one are smacked to smithereens at an alarming rate, but if they could not see what was coming from a distance they would be impelled to move more cautiously at intersections and not run into disaster so readily.

My suggestion is to put the shelterbelts where they belong and put up properly located signs to warn through traffic and to stop secondary traffic.

- Thomas C. Croker, Jr., Tex.

NORTH DAKOTAN SUPPORTS TAYLOR'S PROPOSAL

I, for one, am heartily in favor of the approach Carl Taylor made to the problem of eliminating the traffic hazard said to be caused by shelterbelts. In North Dakota, we have been setting our plantings back from the roads a distance of five to seven rods, depending upon which side of the road the planting is made, but this set-back is primarily to prevent snow from filling in the roadways in winter.

All of the arguments advanced by Mr. Taylor have merit, but it is my contention that in North Dakota the most important argument for changing the policy for locating the shelterbelts is that the snow caught by the trees will furnish a great deal of subsoil moisture. Many of the farmers have seen this and have requested that their plantings be set back 10 to 15 rods so that they might utilize this accumulation of moisture in the production of crops. At present about half of the moisture from melting snow will go into the roadside ditches and is lost to the farms.

Last winter I measured the snow accumulation of a 1935 shelterbelt, and although the snow had been on the ground for a considerable time and had settled, the belt was full; that is, up to the tops of the fence posts. This drift tapered off on the west side of the belt a distance of seven rods, and to the east of the belt a distance of nine to ten rods.

The greatest advantages to the cooperators of locating shelterbelts on the quarter and three-quarter mile lines are: It is possible for the farm having a shelterbelt to secure protection from both north and south winds irrespective of whether a neighbor is a cooperator; elimination of the traffic hazard; presence of a greater number of birds because of less traffic disturbance; preservation of moisture from accumulated snows; and, in some instances, location of the shelterbelt on a more advantageous site.

- Lester D. Hansen, N.Dak.

TREES HELP ALFALFA CROP

In the Artesian Valley of Meade County, Kansas, alfalfa was once the outstanding crop but with the high prices paid for wheat during the last war years, a considerable reduction in alfalfa acreage was made in favor of wheat. More recently, however, particularly since 1933, there has been a more or less general return to alfalfa which is unquestionably one of Meade County's most profitable crops wherever it can be successfully planted. These alfalfa crops could have shelterbelt protection and greatly increased yields if alfalfa fields were not classified with pasture land as areas which may not be protected by shelterbelt plantings.

One illustration of the value of tree protection is typical of others in the vicinity. A. E. Post of Fowler, Kansas, in cutting his alfalfa for seed this summer noticed a pronounced variation in yield between that cut in a small area protected from the south by an old cottonwood and black locust grove and an adjacent unprotected field. Examination of the area and questioning of Mr. Post regarding the possibilities of variation in runoff, snow deposit, time of cutting, amount of seeding done, and other treatment failed to account for the differences. His explanation, and what is apparently the only explanation, lies in the protection which the trees have provided from the hot south and southwest winds which have been exceptionally bad this year.

On a dollar and cents basis, the differences are particularly impressive. On the protected acreage, Mr. Post harvested four bushels of seed per acre, while on the adjacent unprotected land the yield amounted to but $1\frac{1}{2}$ bushels. Alfalfa seed averages about 60 pounds to the bushel. Its price varies considerably but ranges from 16¢ to 26¢ per pound. Assuming a 20¢ average, Mr. Post increased his gross income, due to tree protection, by \$30 per acre.

Admittedly this has been an exceptional year and differences will not often be this pronounced. One of the aims of shelterbelt plantings, however, is the stabilization of farm income and where could this be more readily accomplished than on alfalfa land where hot winds may be so detrimental?

- Donald P. Duncan, Kans.

THIS WAS A REAL SURVIVAL COUNT

The interest of Leonard Taylor of Port, Oklahoma, in his 1-3/4 miles of 1938 shelterbelt is the "height" of something. Anyway, it impelled him to conduct his own survival count one hot August afternoon this year, and it was not by the sampling method. He walked $17\frac{1}{2}$ miles in the Oklahoma heat as he traversed each row, counting every tree -- dead or alive -- and each space where a tree should be.

Here's what he found: Desert willow, in row No. 1, 1,724 living plants and 149 dead; black walnut, in row No. 2, 1,489 alive and 296 dead; green ash, in row No. 3, 934 alive and 41 dead; osageorange, in row No. 4, 938 alive and 12 dead, and in row No. 10, 998 alive and 24 dead; mulberry, in Row No. 5, 908 alive and 64 dead; hackberry, in row No. 6, 882 alive and 49 dead; black locust, 1,005 alive and only 6 dead; and Chinese elm, 901 alive and 24 dead in row No. 8 and 940 alive and 24 dead in row No. 9.

In studying these records one should keep in mind that planting was done at intervals established by pacing the distance between trees, and since several planters were engaged on the job there is a variation in the numbers of trees planted in each row. Nevertheless, Taylor found that he had 10,719 living trees in his 1-3/4 miles of shelterbelt, while only 690 of the trees had died, making the survival rate 94.06 per cent.

Taylor's interest and, of course, his pride in the trees needs little explanation. He takes excellent care of them, having cultivated the shelterbelt five or six times and hand-hoed around the trees twice this summer, and he used poison for rodent control. The trees have made excellent growth, the taller trees averaging 18 to 20 feet in height, and it being apparent to the casual observer that nearly all of the trees planted had lived.

- Stephen C. Harvey, Okla.

FIGURES TO PLAY WITH - THEY'RE REAL INTERESTING

Surprising how a mind will wander, once it is given a few figures to play with. We got our figures for conjecture from a yield study by the Texas unit in a shelterbelt-protected field on Mrs. C. F. Hazlett's farm in Cottle County, Texas -- and they are very interesting figures, indeed. The field was planted to Maize, and principally protected on the south and west by one-half-mile basic shelterbelts.

Briefly, the study showed that the yield of maize within the area extending 227 feet from the trees -- the range of more complete protection -- was $638\frac{1}{2}$ pounds more per acre than in the rest of the field. The crop yield dropped tremendously beyond the 227-foot range. At 63 cents per 100 pounds, the value of the yield in the protected portion of the field was \$4.03 per acre above the value of the yield in the rest of the field.

When the above figures first came in and were being analyzed, the resulting benefits were not only interesting but startling and unbelievable. The mental mathematical gymnastics which took place almost wrought havoc with one's sense of balance..... Um - m let's see, -- 182 miles of shelterbelt in Cottle County averaging two years of age or better with the tallest trees averaging well over 10 feet (we are modest fellows in Texas) in height. On the basis of protection affecting a distance of 20 times the height of the tallest trees to the lee of the belt, -- this means protection to at least 4,404.4 acres in this county. Can't use \$4.03, but let us cut it down to \$3.00. Well, then, 4,404.4 acres times \$3.00 means an increase of at least \$13,213.20 for Cottle County.

Although no additional figures were obtained for the other farms in Cottle County, visual evidence of the crops during the past summer indicated that many others obtained similar increases in crop yields. What ho, then! With 1,600 miles of shelterbelt averaging two years of age and 10 feet in height, the total protected area for the whole state of Texas to date would be 38,720 acres. At \$3.00 an acre, the increased value to the farms of Texas as a result of shelterbelt protection from the hot, blistering, droughty sun of the summer would amount to \$116,160!

Whoa! That's enough!

- Hyman M. Goldberg, Tex.

SOFTBALL TEAM ADVERTISES PROJECT

Last year when I came to Weatherford and started negotiations work, knowledge of the shelterbelt project was practically nil. I was confronted with the problem of trying to initiate a publicity program at the same time that I was working to secure applications for tree belts. The publicity, to begin with, consisted of programs in the towns in my sub-district at which slides were shown and talks made before the small numbers of farmers who attended. This type of publicity was all that we had time for, and very little was accomplished in the way of getting the farmers interested to the extent that they would apply for shelterbelts.

Realizing that something had to be done to make the people conscious of the word "shelterbelt," I organized a softball team and entered it in the city

league. We played from two to three games a week, not only in Weatherford but in the surrounding towns in the county. Every evening we played, the word "shelterbelt" was on the scoreboard, and gradually people began to ask questions about the term "shelterbelt" and what it meant.

This softball team probably did more to make the people tree conscious than all of the meetings we held during the year, and we hope that this publicity will result in many applications for 1940 plantings. At any rate, the Kiwanis Club of Weatherford challenged all other clubs in the county to a contest for applications.

- Rodney M. Roberts, Okla.

HONEYLOCUST MAY COME INTO ITS OWN

J. Russell Smith, famous geographer and student of natural resources, expresses surprise in the October issue of The Farm Journal and Farmer's Wife that farmers have neglected the honeylocust tree for so long. He declares that the honeylocust is a legume which improves the soil, is a fast-growing timber tree which thrives all the way from coolish Connecticut to dry Nebraska and Kansas, and has a thin, open top which permits grass to grow freely underneath.

The beans, he says, are good for stock food and a few farmers are now picking up the beans and grinding them for part of the grain ration of dairy cows. The cows relish the ration.

Chemical analysis, the professor continues, has shown that the two known varieties of honeylocust produce beans yielding more than 30 percent of their weight in sugar. Some of the pods are a foot long and have a thick pulp of sugary material around the bean. You probably have seen children eating the pulp. Professor Smith sees the honeylocust as a potential producer of millions of tons of stock food without interfering with pasture, and even as a possible source of a sugar supply for humans.

Seeking honeylocust trees with the highest feed value, the professor offers 10 cash prizes for samples of their pods: \$15 as first prize, \$5 as second prize, \$3 as third prize, and \$1 each for the seven next best samples. His directions follow:

"Send a five-pound sample of thoroughly dry unbroken pods to J. Russell Smith, Swarthmore, Pennsylvania. Put your name and address on inside and outside.

"If your livestock will not eat the pods, do not send them. If the pulp does not taste good to you, do not send them. There must be thick sweet pulp around the beans. Otherwise, save your postage stamps and our time.

"Contestants agree to furnish scions as directed so that the trees can be tested. No prizes to trees that have received previous prizes. The contest closes December 1."

- Robert A. Dellberg, Kans.

SPRINGTOOTH HARROW HAS A CHAMPION

The use of the springtooth harrow is becoming more and more popular with farmers for the cultivation of their shelterbelts, and there are several good reasons why we should encourage its use.

First, the springtooth harrow enables cultivation close to the tree rows and reduces the amount of hand hoeing, a feature not possessed by implements with wheels such as a unicarrier. This is important, especially in the second and third years of cultivation when side branches make most tools impractical because they run over and break a lot of trees. Secondly, the springtooth harrow will pull out weeds and grass roots, leaving them on top of the ground where they will be killed by drying, while almost every other implement tends to cover a lot of the weeds where they will resume growth immediately, especially if a rain follows cultivation. In the third place, a springtooth harrow leaves a finer mulch on the ground to retard evaporation of soil moisture, and fourth, its original cost is lower than that of other tools and it has no boxings or bearings to wear out. Upkeep is negligible, a child can operate it successfully, and it needs very little disassembling for moving. It can be moved in any truck or trailer, single handed, if necessary.

I do not want this to be construed as a condemnation of any of the equipment the Forest Service has purchased for loan to cooperators, but I do think that perhaps some of our equipment is somewhat cumbersome and that the demand for its use has been considerably less than we had hoped. Perhaps this is not the fault of the equipment; it may be that we have failed to demonstrate its value to the farmer.

Several cooperators in this district have purchased springtooth harrows especially for cultivation of their shelterbelts, and they have done an excellent job. Their trees show good growth and survival, and as a whole the cooperators praise the implement most highly. I believe that, if funds are available, the Forest Service would be justified in purchasing a few springtooth harrows for loan to cooperators, and that their use should be encouraged.

This is purely my personal opinion, and I may be emphasizing the springtooth harrow too strongly. I would like, therefore, to hear the opinions of others relative to the merits of cultivation tools. Very little has been written about them in PLAINS FORESTER, although cultivation is one of the most important phases of our work.

- Claude S. Asp, Okla.

SHELTERBELT PAYS COLLEGE EXPENSES

The appeal of shelterbelts for most farmers is that they will pay dividends in land and crop protection and in the production of posts, fuel wood and lumber, these benefits to be realized from the time the trees are three or four years old until they reach old age. In Harvey County, Kansas, however, there is a 1939 shelterbelt planted in April which began paying dividends within 40 days after it was planted.

Bethel College, a denominational school located near Newton, Kansas, is the cooperator on whose land the shelterbelt is planted. The college administration inquired into the shelterbelt program, and, once convinced that it was

worth while, entered enthusiastically into all of its phases. The shelterbelt is now in on the annual spring "clean up day," which is a tradition of long standing at Bethel College, when the campus is groomed for the summer. While the campus gets this attention only once a year, the shelterbelt receives attention every 15 or 20 days during the summer months.

When I made my first cultivation contact at this shelterbelt, I found machine cultivation and hand hoeing under way. I thought for a moment that one of the cultivation crews had strayed from its route, but no truck was in evidence. Investigation revealed the manner in which the shelterbelt was paying dividends so early in its life -- the hand hoeing was being done by young men who were using that means of earning a part of their college expenses, although it meant blistered hands and sore backs.

It was gratifying to learn that the shelterbelt was instrumental in enabling those boys at Bethel to secure a college education. We need more investors with such initiative to increase the dividends in survival and growth, and reduce the likelihood of weeds choking the young trees.

- Robert G. Cameron, Kans.

NO CHAIN IS STRONGER THAN THE WEAKEST LINK!

My first assignment with the Prairie States Forestry Project was on a district, where it was only natural that I should form the opinion that the important phases of the shelterbelt work were performed by the District. Negotiations, planting, cultivation, contact work and public relations were stressed. About the only thing taken for granted was that the trees necessary to meet our planting quotas would be available when planting time arrived.

After a year on a District, I was transferred to a nursery where I learned that the nurseryman has a real job on his hands. His responsibility is to produce necessary planting stock, else the District Officer's contact work and negotiations go for naught. The nurseryman constantly fights against sandstorms, drought, beating rains and hail in his efforts to bring the tender seedlings through the critical stages before they become established.

In short, the nurseryman's megrims are numerous and severe as he undertakes to produce enough little trees so that the districts may plant their quotas.

- R. Reynolds, Okla.

PORCUPINES ADD TO RODENT WORRIES

John Craig, who has a 1938 shelterbelt near Bridgeport, Nebraska, is afraid of porcupines!

Not that he thinks a porcupine would attack him, of course, but when Subdistrict Officer Zaylskie shot one in Craig's shelterbelt early in August, the fear was expressed that it was one of a number of scouts from the nearby hills sent out to reconnoitre the promised land. Evidently the fare in the shelterbelts appears "greener" to this variety of hillbilly.

Craig is quite concerned over the situation and, with Zaylskie, is formulating mobilization plans to repulse any attempted invasion. Zaylskie wishes that those big rodents would stay home -- in the Wild Cat Hills -- because he and the farmers in his subdistrict are already hard put to repel attacks of jack rabbits and smaller rodents.

- Carroll F. Orendurff, Nebr.

WELL-PLANNED EXHIBIT GOOD INVESTMENT

Of the numerous means for carrying information about shelterbelts to the farmers, a well-planned exhibit is one of the most forceful. Its potency lies in the visible examples it presents, frequently more dramatically eloquent than the finest speech or written article. Its limitation is that it reaches only those of the public who can come to see it.

In southwestern Oklahoma, we have had gratifying response from the exhibition of miniature shelterbelt projects at several county fairs. One of the exhibits was constructed on a truck bed, and on several occasions participated in town parades. The displays showed two farms, one of them protected by a shelterbelt with resultant good crops and improvements in fine condition, and the other an unprotected, windblown farm with resultant poor crops, unpainted buildings and few improvements.

A great number of people, both old and young, were attracted by these exhibits, and several hundred "questions and answers" pamphlets were distributed to those who wanted them. The comparison in miniature of protected and windblown farms, portrayed by the exhibits, caught the eyes of several residents of windblown farms and they eagerly grasped for applications.

We feel that the interest displayed by the crowds and the comments they made forecast the receipt of many applications. All in all, exhibits seem to be one of the best ways to bring the farmer closer to us.

- Ted Raide, Okla.

SEEING IS BELIEVING; SHOW RABBITS RUIN TREES

When the Russell County (Kansas) Fair Association offered free to Sub-district Officer Victor Griswold, of the Great Bend Subdistrict, exhibition space that would have cost a local business man \$10, it was too good to turn down. So Griswold went to work; he thought deeply and studied all previous exhibits portraying the work of the PSFP that he had seen, finally settling on rodent control as his thesis.

Aware that, in public exhibits of this nature, people are most easily attracted by moving objects or living things, Griswold selected two rabbits as his attention-getters. A screened cage with a partition through the middle was constructed. Four Chinese elm trees from 1939 shelterbelts were transplanted in five-gallon cans and two were placed in each side of the cage, sticking up through the floor. In one side of the cage, salt blocks were properly exposed and no rabbit damage was evident. The two rabbits were placed in the other side, where they were to demonstrate what happens when rodent control work is neglected. There was some doubt that the damage the bunnies would do would be enough to make a conclusive demonstration, but the first night's feasting dispelled all fears. The rabbits in that single night completely destroyed the trees in their side of the cage, leaving what very much resembled a box of spilled matches.

One quick-thinking farmer remarked that the rabbits would not have eaten the trees had there been anything else to eat in the cage, but he quickly moved on when he was asked what besides young trees the rabbits would live on when a six-inch cover of snow is on the ground. Another farmer explained that

he had had good success painting his young trees; his theory was exploded when Griswold pointed out that the rabbits had completely stripped the corners of the 2x2 uprights used in constructing the cage despite the fact that they had been given two coats of paint.

The exhibit was augmented by samples of the different baits used in rodent control, and it must have driven the point home to shelterbelt co-operators because the local warehouse poison supply was exhausted within the next few days following the fair.

As usual jack rabbits would not be on hand when they were wanted so Griswold had to use a couple of tame bunnies, and because District fiscal minds could not fix themselves upon a proper activity charge for the living rodents, purchase of the rabbits was financed by private funds. They are now being fed and cared for by crews at the Great Bend warehouse, and should the history of tame rabbits repeat itself it is reasonable to suppose that neither Griswold nor any other Project Officer will have difficulty in obtaining rabbits for fair exhibits next fall. In fact, Griswold probably will be anxious to fill requests.

- C. Lyman Calahan, Kans.

FROM THE EDITOR'S NOTEBOOK

We are beginning to let the farmers themselves tell about shelterbelts, and if there is anyone more authoritative in a farming community than a farmer who is respected for his sound practices, I'd like to know who it is. The presence on my desk of three newspaper clippings just arrived from Texas brought this subject up. They tell about the experiences of T. L. Lambert who lives near the Rayland community, and who planted corn on both sides of his shelterbelt. On the north side, where the corn was protected from hot winds, Lambert got a yield of 25 bushels of corn per acre, while on the south side the yield was only 5 bushels an acre. This farmer says the soil in both fields is the same, both fields were planted the same day with the same kind of seed and have received the same sort of care. He says protection from the hot winds did it!

There is nothing in any of the stories to indicate that a Forest Officer had anything to do with them; they appear to be the productions of the newspapers themselves.

The Texas incident is only an indication of a recent development along this line which is slowly making itself felt. Nearly every state has a spot where the editorial force is recognizing the news in shelterbelts and is seeking information on its own hook -- an interview with a farmer when he is in town for his weekly shopping, a feature story secured by a farm editor seeking something that he can illustrate with pictures. This is the ultimate in an information program, and mostly results from interest generated by close friendly contacts between the newspaper man and the field worker, not from the Forest Officer visiting the newspaper man only when he wants something printed or especially to furnish him information.

* * *

In the last issue of PLAINS FORESTER we published a copy of a letter from Governor Harlan Bushfield of South Dakota to State Director of Extension, in which the Governor emphatically endorsed the PSFP. Now comes the following editorial, "An Asset to a Community," printed in the Armour (S.D.) Herald September 15:

"It was indeed a pleasure on one evening this week to hear the Governor of our state, Harlan Bushfield, compliment highly the work of the Prairie States Forestry Project in the planting of trees in this state.

"Admitting that at first he criticized the project, Gov. Bushfield in an effort to rectify his mistake has offered the support of the entire state and has appealed to the officials of the counties and cities to push this program forward with every effort.

"It is indeed a remarkable program --- when driving about the state, to see young trees flourishing and to realize how efficient the Shelterbelt program has been and will be. It should be an incentive also for individuals to profit by this splendid example."

The Governor is impressed by what he sees of the shelterbelts, as is evidenced by the following excerpt from a later letter from the Governor to Mr. Ford:

"Each time I travel the eastern part of the state, I am more impressed by the splendid work your Division is doing."

* * *

We had been thinking of starting a beauty contest among the feminine contingent of the Project, but now we're afraid. It was a picture and story in the Hutchinson (Kansas) News that scared us out. You see, the picture was that of Miss Mary Kay Norris, a new stenographer at the District Office at Kinsley, and she was a contestant for Queen of the American Royal Stock Show at Kansas City. Beauty and charm were the requisites and Miss Norris has what it takes.

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"And so it will be until the government runs its tree belt from the gulf to Manitoba. That, and only that, will save the middle west."

Those are the words of William S. Morton, Nebraska pioneer now living in Portland, Oregon, printed in the October 15 issue of the Lincoln (Nebraska) Journal-Star. Morton tells about the early days in Nebraska and described how J. Sterling Morton got his inspiration about tree planting.

"Tree planting did so well that in 25 years hedges and groves were doing fine," Morton continued. "A new crop of homesteaders came west and bought farms at a big price because they were so productive -- and right away brought stump pullers, cut off the groves and even the orchards, and pulled up the hedge fences so they could plant more crops.

"Woe on Nebraska! For then the snow could all slide into the low places, and in summer hot winds had clear sweep once more. And so it will be until the government runs its tree belt from the gulf to Manitoba. That, and only that, will save the middle west. Man has always been queer that way, so if the government plants the trees, maybe the homesteaders will leave them be."

* * *

Helen Naser of Operation is back from a vacation trip to the West Coast, where she visited with relatives. Oh yes, she saw the San Francisco fair and went deep down into the ground to explore the Carlsbad Cavern.

The only R.O. vacationer at liberty now is Malcolm Stuart, who, with Mrs. Stuart, probably is doing what he announced they intended to do -- be as useless as possible. They'll need plenty of rest, because when they come back they will undertake the task of training a Samayat puppy in the intricacies of civilization.

* * *

There is something I'd like to ask the field. Why is it that the R.O. officers go into the field and bring back fabulous but "certified" bowling scores. (If you don't believe we're puzzled, take a look at our bowling team's status.) Bob Bennett went to Grand Island and returned with the "evidence" that he rolled a 256 game, but even more surprising there was a 205 score for Sid Burton on the same sheet. Maybe Ye Ed had better do a little practice on foreign alleys, too.

* * *

Miss Margaret March-Mount of Region Nine has been spending the last month in Kansas, with a quick sally into Nebraska for an appearance before the Nebraska Federation of Women's Club convention. It was the first time I had seen her work, and believe me, she certainly gets on with those women. Miss March-Mount believes in mixing nonsense with the serious, and her listeners absorb a lot of good common sense about forestry and tree planting with their laughs.

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IT'S ANOTHER BOY!

John Eldon Thomas (Alias "Hap, Jr.") has arrived on the Project. He was born early on the morning of October 11 to Mr. and Mrs. Mark Thomas. Mark ("Hap, Sr.") is a member of Fiscal Control. The boy and his mother are getting along fine, while "Hap, Sr.," gets accustomed to being a family man. Congratulations!

IT'S AN UP-TO-DATE PUN, ANYWAY

They say that a pun is Anyway, a member of the Nebraska State Office staff entered a Grand Island drug store one day recently, intent upon making a small purchase. The druggist greeted him: "You fellows certainly are going to have to plant a lot of trees now!" His response to the State Office staffer's "Why?" was: "Because there are darn few Poles left in the world."

- Nebraska (Anonymous)